# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# **Reclamation District No. 2075 McMullin**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

LM Start		Rating **	Α	Issue No.		9
				Location *		<u>~</u>
LM End		Issue Type +	Ma	Location		N/A
Category	Earthen L	evee		GPS La	atituc	le/Longitude
Category				Start		End
Item		s & Maintena	nce		0	37.744860 °
пеш	Manuals				0	-121.289828 °
DWR ID DWR_RD2075_01_f _ 2014_9						
		Comn	nent Cod	le		
		Inspecto	or Comm	nent		
RD 2075 h	RD 2075 has the O&M Manual on file.					

No Photos

LM Start		Rating **	Α	Issue No.		10		
LM End		Issue Type +	Ма	Location *				
Category	Earthen L	evee		GPS La	atituc	le/Longitude		
Calegory				Start		End		
Item		cy Supplies &			0		0	
пеш	Equipmer	nt			0		0	
DWR ID DWR_RD2075_01_f _ 2014_10								
		Comn	nent Coo	de				
Inspector Comment								
RD 2075 has emergency supplies stored in their building.								

No Photos

N: Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# **Reclamation District No. 2075 McMullin**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

LM Start	Rating ** A Issue No. 11							
LM End		Issue Type +	Ma	Location *				
Category	Earthen L	evee		GPS La	atituc	le/Longitude		
Calegory				Start		End		
Item	Flood Preparedness & Training				0		0	
item					0		0	
DWR ID	DWR_RD2	075_01_f _ 201	4_11					
		Comn	nent Cod	le				
Inspector Comment								
	RD 2075 has regular training for their work crews, they don't have district crew only trustees, landowners and farmers.							

No Photos

LM Start	0.00	Rating ** M		Issue No.		24
LM End	7.44	Issue Type +	Ma	Location *		LS
Category	Earthen L		GPS La	atitud	e/Longitude	
Calegory			Start		End	
Item	Vegetatio	n		37.7495	55 °	37.710188 °
пеш				-121.2889	13 °	-121.268387 °
D14/D 1D	D14/D DD0					·

DWR\_RD2075\_01\_s \_ 2018\_24

Comment Code

V1 : Control annual grass and weeds on the levee slopes and easements.

Inspector Comment

Control wild growth on levee slope.

No	P	ho	tos

LM Start	0.00	Rating **	М	Issue No. 25		25		
LM End	7.44	Issue Type +	Ma	Location *	ocation * V			
Category	.evee	GPS La	titud	e/Longitude				
Calegory			Start		End			
Item	Vegetatio	n		37.7495	55 °	37.710188 °		
пеш				-121.2889°	ı3°	-121.268387 °		
DWR ID DWR_RD2075_01_s _ 2018_25								
	Comment Code							

Comment Code

V1 : Control annual grass and weeds on the levee slopes and easements.

Inspector Comment

Control wild growth on levee slope.

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS: Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

LM Start	0.12	<b>0.12</b> Rating ** M				30	
LM End	0.12	Issue Type +	Ma	Location *			
Category	Suppleme	ental		GPS La	atitud	le/Longitude	
Calegory		Start		End			
Item	DWR UC	IP LMA Respo	onsibility	37.7482	00°	37.748200	0
item		-121.2897	17°	-121.289717	0		
DWR ID					·		

# Comment Code

#### Inspector Comment

FS\_ID:24663 DS\_ID:24735 EP\_NO: 4736

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: - pipe not visible on waterside.- no access to

concrete riser on waterside.- blocked siphon breaker.

FIELD\_STRUCT\_DESC: 14-inch coated steel drainage discharge pipe through the levee, 4 feet below the crown. Two concrete cutoff walls. Pump mounted on a pile structure in the drainage ditch on the landside (LS). Siphon breaker in a concrete riser on the waterside (WS) slope. Concrete distribution box at the WS toe. (Plans for removing and replacing an existing drainage pipe through the levee authorized under Permit No. 4736, 1964 - Reclamation District No. 2075). [Additional Reference(s): DWR Levee Log, 2005, 12-inch pipe referenced. USACE San Joaquin O&M Manual 3, December 1968, (HLM 0.12), 12-inch pipe referenced].

FS Date: 11/13/2013

LM Start	0.12	Rating **	М	Issue No.	30 (cont)
LM End	0.12	Issue Type +	Ma	Location *	

# Photo 1 of 3: UCIP\_SP\_2018\_24663\_44022.jpg



WS view: concrete standpipe (top) and concrete pipe riser (bottom) on levee slope.

#### Photo 2 of 3: UCIP\_SP\_2018\_24663\_44021.jpg



WS view: concrete pipe riser with siphon breaker on levee slope.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

LM Start	0.12	Rating **	М	Issue No.		30 (cont)
LM End	0.12	Issue Type +	Ma	Location *		
Category	Suppleme	ental		GPS La	atitud	le/Longitude
Calegory				Start		End
Item	DWR UC	IP LMA Respo	onsibility	37.7482	00°	37.748200 °
пеш				-121.2897	17°	-121.289717°
DWR ID						

# Comment Code

#### Inspector Comment

FS\_ID:24663 DS\_ID:24735 EP\_NO: 4736

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: - pipe not visible on waterside.- no access to

concrete riser on waterside.- blocked siphon breaker.

FIELD\_STRUCT\_DESC: 14-inch coated steel drainage discharge pipe through the levee, 4 feet below the crown. Two concrete cutoff walls. Pump mounted on a pile structure in the drainage ditch on the landside (LS). Siphon breaker in a concrete riser on the waterside (WS) slope. Concrete distribution box at the WS toe. (Plans for removing and replacing an existing drainage pipe through the levee authorized under Permit No. 4736, 1964 - Reclamation District No. 2075). [Additional Reference(s): DWR Levee Log, 2005, 12-inch pipe referenced. USACE San Joaquin O&M Manual 3, December 1968, (HLM 0.12), 12-inch pipe referenced].

FS Date: 11/13/2013



LS view: walkway, pump, service pole, and intake structure.

LM Start	0.99	Rating **	A/W	Issue No.		13
LM End	1.00	Issue Type +	Ма	Location *		LS
Category	Earthen L	evee		GPS La	atitud	e/Longitude
Calegory				Start		End
Item	Trim / Thi	n Trees		37.7400	15°	37.739830°
пеш				-121.2812	43 °	-121.281217°
DWR ID	DWR_RD2	075_01_f _ 2010	6_13			·

# Comment Code T4 : Trim trees over roadway to at least 12 feet above ground level.

# Inspector Comment

Trees have been trimmed to allow inspection and access.

#### Photo 1 of 1: SP\_2018\_RD2075\_315\_13\_20180503\_00008.jpg



Trees have been trimmed to allow inspection and access.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# **Reclamation District No. 2075 McMullin**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

LM Start	1.06	1.06 Rating ** A/W Issue No. 17							
LM End	1.06	Issue Type +	Ma	Location *		LS			
Category	Earthen L	evee		GPS La	titud	le/Longitude			
Start End									
Trim / Thin Trees 37.739073 ° 37.739073 °									
-121.281620 ° -121.281620 °									
DWR ID DWR_RD2075_01_f _ 2016_17									
	Comment Code								

T4: Trim trees over roadway to at least 12 feet above ground level.

#### Inspector Comment

Trees trimmed to allow inspection and access.



Trees trimmed to allow inspection and access.

LM Start	1.55 Rating ** U Issue No. 29								
LM End	1.63	Issue Type +	Ма	Location *		LS			
Category	Earthen L	evee		GPS La	atitud	e/Longitude			
Start End									
Vegetation 37.734470 ° 37.734213 °									
-121.286230 ° -121.287660 °									
DWR ID DWR_RD2075_01_s _ 2018_29									

#### Comment Code

V2 : Remove the wild growth other than native grasses from the levee slopes.

#### Inspector Comment

Wild growth at landward toe blocking view and should cleared fifteen feet for landward toe.

LM Start	1.55	Rating **	U	Issue No.	29 (cont)
LM End	1.63	Issue Type +	Ma	Location *	LS

# Photo 1 of 3: SP\_2018\_RD2075\_315\_29\_20180525\_00065.jpg



Looking west at dense veg at landward toe. (Spring 2018)

Photo 2 of 3: SP\_2018\_RD2075\_315\_29\_20180525\_00064.jpg



Looking west at dense veg. at landward toe. (Spring 2018)

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

ltem	LM Start	Start         1.55         Rating **         U         Issue No.         29 (cont)								
Category         Start         End           Item         37.734470         37.734213	LM End	1.63	Issue Type +	Ma	Location *		LS			
Start         End           Vegetation         37.734470         37.734213	Catagony	Earthen L	evee		GPS La	atitud	le/Longitude			
ltem										
-121.286230 ° -121.287660	Vegetation 37.734470 ° 37.734213 °									
	-121.286230 ° -121.287660 °									
DWR ID DWR_RD2075_01_s _ 2018_29										

#### Comment Code

V2 : Remove the wild growth other than native grasses from the levee slopes.

#### Inspector Comment

Wild growth at landward toe blocking view and should cleared fifteen feet for landward toe.



Looking northeast at dense veg at landward toe. (Spring 2018)

LM Start	1.58	Rating **	М	Issue No.		12
LM End	1.67	Issue Type +	Ma	Location *		
Category	Suppleme	ental		GPS La	titud	e/Longitude
Calegory				Start		End
Item	2017 Stor	m Damage		37.73435	3°	37.734463 °
пеш				-121.28672	° 0	-121.288258 °
DWR ID	DWR_RD2	075_01_f _ 201	7_12			

### Comment Code

#### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:575

Site Designation:LMA-481

Repair Type: Erosion
Rating:Area of Concern

Field Date:8/10/2017

Notes: 10/23/17: According to LMA and my observations at LM 1.63, this site never had riprap (contrary to previous comments). Erosion has encroached into levee prism. Future high water and wavewash will likely advance erosion further into prism. Repairs should be made prior to next high water.

#### Photo 1 of 4: LEVAL\_SP\_2018\_575\_4241.jpg



# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# **Reclamation District No. 2075 McMullin**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

LM Start	1.58	Rating **	М	Issue No.		12 (cont)
LM End	1.67	Issue Type +	Ма	Location *		
Supplemental				GPS Latitude/Longitude		
Calegory	Category					End
Item	2017 Stor	m Damage		37.7343	53 °	37.734463 °
пеш				-121.2867	20°	-121.288258 °
DWR ID DWR_RD2075_01_f _ 2017_12						
Comment Code						

#### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:575

Site Designation:LMA-481

Repair Type: Erosion

Rating:Area of Concern

Field Date:8/10/2017

Notes: 10/23/17: According to LMA and my observations at LM 1.63, this site never had riprap (contrary to previous comments). Erosion has encroached into levee prism. Future high water and wavewash will likely advance erosion further into prism. Repairs should be made prior to next high water.

LM Start	1.58	Rating **	М	Issue No.	12 (cont)
LM End	1.67	Issue Type +	Ma	Location *	



Photo 3 of 4: LEVAL SP 2018 575 4246.jpg



N : Not Inspected/Rated C : Corrected

A/W : Acceptable but Monitor & Maintain

+ Issue Type

Ma : Maintenance Deficiancy

Ob : Design & System Obsolescence

En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

LM Start	1.58	Rating **	М	Issue No.	12 (cont)		
LM End	1.67	Issue Type +	Ma	Location *			
Supplemental				GPS Latitude/Longitude			
Calegory		Start		End			
Item	2017 Stor	m Damage		37.73435	i3°	37.734463 °	
пеш				-121.28672	° 02	-121.288258 °	
DWR ID DWR_RD2075_01_f _ 2017_12							
Comment Code							

#### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:575

Site Designation:LMA-481

Repair Type: Erosion

Rating:Area of Concern

Field Date:8/10/2017

Notes: 10/23/17: According to LMA and my observations at LM 1.63, this site never had riprap (contrary to previous comments). Erosion has encroached into levee prism. Future high water and wavewash will likely advance erosion further into prism. Repairs should be made prior to next high water.

# Photo 4 of 4 : SP\_2018\_RD2075\_315\_12\_20180503\_00007.jpg



10/23/17: According to LMA and my observations at LM 1.63, this site never had riprap (contrary to previous comments). Erosion has encroached into levee prism. Future high water and wavewash will likely advance erosion further into prism. Repairs should be made prior to next high water.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# **Reclamation District No. 2075 McMullin**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

LM Start	2.32	Rating **	М	Issue No.	31	
LM End	2.32	Issue Type +	Ма	Location *		
Category				GPS Latitude/Longitude		
Calegory			Start		End	
Item	DWR UCI	P LMA Respo	nsibility	37.7313	14°	37.731314°
item				-121.2937	13 °	-121.293713 °
DWR ID						
Comment Code						

#### Inspector Comment

FS\_ID:24666 DS\_ID:24737 EP\_NO: N/A

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: - service pole on landside.- looks abandoned.

Walkway in dilapidated condition.

FIELD\_STRUCT\_DESC: 16-inch steel drainage discharge pipe through the levee, 4.5 feet below the crown. Corrugated metal cutoff wall. Pump mounted on a pile structure in a drainage ditch on the landside (LS). Siphon breaker in a corrugated metal pipe (CMP) riser on the waterside (WS) slope. [Additional Reference(s): DWR Levee Log, 2005. USACE San Joaquin O&M Manual 3, December 1968, (HLM 2.30)].

FS Date: 11/13/2013

LM Start	2.32	Rating **	М	Issue No.	31 (cont)
LM End	2.32	Issue Type +	Ma	Location *	

# Photo 1 of 3: UCIP\_SP\_2018\_24666\_45600.jpg

WS view: concrete standpipe (top) and steel pipe riser (bottom marked) on levee slope.

#### Photo 2 of 3: UCIP\_SP\_2018\_24666\_44030.jpg



WS view: blocked siphon breaker in steel pipe riser on levee slope.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

LM Start	2.32	Rating **	М	Issue No.		31 (cont)		
LM End	2.32	Issue Type +	Ma	Location *				
Category	Supplemental				GPS Latitude/Longitude			
Calegory				Start		End		
Item	DWR UC	IP LMA Respo	nsibility	37.7313	14°	37.731314°		
пеш				-121.2937	13 °	-121.293713 °		
DWR ID								

# Comment Code

Inspector Comment

FS\_ID:24666 DS\_ID:24737 EP\_NO: N/A

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: - service pole on landside.- looks abandoned.

Walkway in dilapidated condition.

FIELD\_STRUCT\_DESC: 16-inch steel drainage discharge pipe through the levee, 4.5 feet below the crown. Corrugated metal cutoff wall. Pump mounted on a pile structure in a drainage ditch on the landside (LS). Siphon breaker in a corrugated metal pipe (CMP) riser on the waterside (WS) slope. [Additional Reference(s): DWR Levee Log, 2005. USACE San Joaquin O&M Manual 3, December 1968, (HLM 2.30)].

FS Date: 11/13/2013



WS view: concrete standpipe on levee toe.

LM Start	2.32	Rating **	A/W	Issue No.		15	
LM End	2.78	Issue Type +	Ma	Location *			
Category				GPS Latitude/Longitude			
Calegory				Start		End	
Itom	2017 Stor	m Damage		37.7312	00°	37.724900	0
ltem			-121.2934	00 °	-121.293800	0	
DWR ID DWR_RD2075_01_f _ 2017_15							
	Comment Code						

# Inspector Comment

Levee Evaluation Comments

Description:Sinkholes have formed along the landside levee toe as a result of the high water. The cause of the sinkholes is not clear, but a similar phenomenon in this area is believed to have caused the levee breach earlier this year. Further geotechnical investigation is needed. Site ID No:479

Site Designation:LMA-306 Repair Type: Stability Rating:Area of Concern Field Date:7/26/2017

Notes: Sink holes appear to have already been filled. 10/23/17: LMA has removed pipes (parallel to levee) in this area, and drainage ditch has been relocated to approx 60 feet away from levee toe. Known sandy soils in region may contribute to sinkholes.

#### Photo 1 of 3: LEVAL SP 2018 479 2203.jpg



# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# **Reclamation District No. 2075 McMullin**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

LM Start	2.32	Rating **	A/W	Issue No.	15 (cont)		
LM End	2.78	Issue Type +	Ma	Location *			
Category				GPS Latitude/Longitude			
Calegory	Category					End	
Item	2017 Stor	m Damage		37.7312	00°	37.724900 °	
пеш				-121.2934	00°	-121.293800 °	
DWR ID DWR_RD2075_01_f _ 2017_15							
Comment Code							

#### Inspector Comment

Levee Evaluation Comments

Description:Sinkholes have formed along the landside levee toe as a result of the high water. The cause of the sinkholes is not clear, but a similar phenomenon in this area is believed to have caused the levee breach earlier this year. Further geotechnical investigation is needed. Site ID No:479

Site Designation:LMA-306 Repair Type: Stability Rating:Area of Concern Field Date:7/26/2017

Notes: Sink holes appear to have already been filled. 10/23/17: LMA has removed pipes (parallel to levee) in this area, and drainage ditch has been relocated to approx 60 feet away from levee toe. Known sandy soils in region may contribute to sinkholes.

LM Start	2.32	Rating **	A/W	Issue No.	15 (cont)
LM End	2.78	Issue Type +	Ma	Location *	



Photo 3 of 3: SP\_2018\_RD2075\_315\_15\_20180503\_00017.jpg



10/23/17: LMA has removed pipes (parallel to levee) in this area, and drainage ditch has been relocated to approx 60 feet away from levee toe. Known sandy soils in region may contribute to sinkholes.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

LM Start	2.74	Rating **	A/W	Issue No.	16			
LM End	2.84	Issue Type +	Ma	Location *				
Category	ental	GPS Latitude/Longitude						
Calegory			Start		End			
Itom	2017 Storm Damage			37.72520	00°	37.724000 °		
Item			-121.29440	00°	-121.293200 °			
DWR ID DWR_RD2075_01_f _ 2017_16								
	Comment Code							

#### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion. Based upon levee inspections, it was determined the waterside levee slopes were eroding, deteriorating and degrading in concave pocket sections at various locations along this levee reach. The eroded levee sections need to be restored back to design standards to prevent further deterioration of the damaged levee sections.

Site ID No:480

Site Designation:LMA-307 Repair Type: Erosion

Rating:Area of Concern Field Date:7/26/2017

Notes: Low priority because of the wide berm. Could not see all of the bank because of vegetation. Rock was placed on LS here during this years storms.

LM Start	2.74	Rating **	A/W	Issue No.	16 (cont)
LM End	2.84	Issue Type +	Ma	Location *	



Photo 2 of 3: LEVAL\_SP\_2018\_480\_2207.jpg



N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy

Ob : Design & System Obsolescence
En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

LM Start	2.74	Rating **	A/W	Issue No.	16 (cont)		
LM End	2.84	Issue Type +	Ма	Location *			
Category	Suppleme	ental	GPS La	le/Longitude			
Category			Start		End		
ltom	2017 Stor	2017 Storm Damage			00°	37.724000 °	
ltem			-121.2944	00°	-121.293200 °		
DWR ID DWR_RD2075_01_f _ 2017_16							
Comment Code							

#### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion. Based upon levee inspections, it was determined the waterside levee slopes were eroding, deteriorating and degrading in concave pocket sections at various locations along this levee reach. The eroded levee sections need to be restored back to design standards to prevent further deterioration of the damaged levee sections.

Site ID No:480

Site Designation:LMA-307 Repair Type: Erosion Rating:Area of Concern Field Date:7/26/2017

Notes: Low priority because of the wide berm. Could not see all of the bank because of vegetation. Rock was placed on LS here during this years storms.



LM Start	2.77	Rating **	A/W	Issue No.	14			
LM End	2.83	Issue Type +	Ma	Location *				
Category				GPS Latitude/Longitude				
Category			Start		End			
ltom	2017 Storm Damage			37.7248	10°	37.724207 °		
Item			-121.2941	50°	-121.293308 °			
DWR ID DWR_RD2075_01_f _ 2017_14								
Comment Code								

#### Inspector Comment

Levee Evaluation Comments

Description: Site ID No:81

Site Designation:LMA-35 Repair Type: Erosion Rating:Area of Concern Field Date:6/8/2017

Notes: no damage present 10/23/17: Photos taken of vertical eroded low-flow bank approximately 20 feet from waterside levee toe. Area is composed of loose sand. Sandbar in channel may direct current toward this area.



* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# **Reclamation District No. 2075 McMullin**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

LM Start	2.77	Rating **	A/W	Issue No.	14 (cont)		
LM End	2.83	Issue Type +	Ma	Location *			
Category Supplemental				GPS Latitude/Longitude			
Category			Start		End		
Itom	2017 Storm Damage			37.7248	10°	37.724207°	
item	Item -121		-121.2941	50 °	-121.293308°		
DWR ID	VR ID DWR_RD2075_01_f _ 2017_14						
		Comn	nent Coc	le			

#### Inspector Comment

Levee Evaluation Comments

Description: Site ID No:81

Site Designation:LMA-35 Repair Type: Erosion Rating:Area of Concern Field Date:6/8/2017

Notes: no damage present 10/23/17: Photos taken of vertical eroded low-flow bank approximately 20 feet from waterside levee toe. Area is composed of loose sand. Sandbar in channel may direct current toward this area.

LM Start	2.77	Rating **	A/W	Issue No.	14 (cont)
LM End	2.83	Issue Type +	Ma	Location *	





\* Location

LS: Land Side N/A: Not Applicable

WS: Water Side

CR: Crown

\* Rating

A: Acceptable

M: Minimally Acceptable

U: Unacceptable

N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence
En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

LM Start	2.77	Rating **	A/W	Issue No.		14 (cont)	
LM End	2.83	Issue Type +	Ma	Location *			
Category	Suppleme	ental		GPS La	le/Longitude		
Calegory				Start		End	
Item	2017 Stor	m Damage		37.7248	10°	37.724207°	
пеш				-121.2941	50°	-121.293308 °	
DWR ID	DWR_RD2075_01_f _ 2017_14						
Comment Code							

#### Inspector Comment

Levee Evaluation Comments

Description: Site ID No:81

Site Designation:LMA-35 Repair Type: Erosion Rating:Area of Concern Field Date:6/8/2017

Notes: no damage present 10/23/17: Photos taken of vertical eroded low-flow bank approximately 20 feet from waterside levee toe. Area is composed of loose sand. Sandbar in channel may direct current toward this area.

LM Start	2.77	Rating **	A/W	Issue No.	14 (cont)
LM End	2.83	Issue Type +	Ma	Location *	



View down through erosion rut in bank. 10/23/17: Photos taken of vertical eroded low-flow bank approximately 20 feet from waterside levee toe. Area is composed of loose sand. Sandbar in channel may direct current toward this area.

#### Photo 5 of 6: SP\_2018\_RD2075\_315\_14\_20180503\_00013.jpg



View upstream showing narrow distance between levee toe and vertical bank. 10/23/17: Photos taken of vertical eroded low-flow bank approximately 20 feet from waterside levee toe. Area is composed of loose sand. Sandbar in channel may direct current toward this area.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

LM Start	2.77	Rating **	A/W	Issue No.		14 (cont)
LM End	2.83	Issue Type +	Ma	Location *		
Category	Suppleme	ental	GPS Latitude/Longitude			
Calegory				Start		End
Item	2017 Stor	m Damage		37.7248	10°	37.724207°
пеш				-121.2941	50 °	-121.293308°
DWR ID	DWR_RD2075_01_f _ 2017_14					
	Comment Code					

#### Inspector Comment

Levee Evaluation Comments

Description: Site ID No:81

Site Designation:LMA-35 Repair Type: Erosion Rating:Area of Concern Field Date:6/8/2017

Notes: no damage present 10/23/17: Photos taken of vertical eroded low-flow bank approximately 20 feet from waterside levee toe. Area is composed of loose sand. Sandbar in channel may direct current toward this area.



View upstream showing narrow distance between levee toe and vertical bank. 10/23/17: Photos taken of vertical eroded low-flow bank approximately 20 feet from waterside levee toe. Area is composed of loose sand. Sandbar in channel may direct current toward this area.

LM Start	3.90	Rating **	A/W	Issue No.		18
LM End	3.95	Issue Type +	Ma	Location *		
Category	Suppleme	ental		GPS Latitude/Longitu		e/Longitude
Calegory				Start 37.7133		End
Item	2017 Stor	m Damage		37.7133	88 °	37.713492 °
пеш				-121.2800	18 °	-121.278982 °
DWR ID	DWR_RD2	075_01_f _ 201	7_18			
	Comment Code					

#### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:576

Site Designation:LMA-482 Repair Type: Erosion Rating:Area of Concern Field Date:8/10/2017

Notes: 10/23/17: There was no riprap in this area. Erosion sites have

been repaired by LMA.



* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

LM Start	3.90	Rating **	A/W	Issue No.		18 (cont)
LM End	3.95	Issue Type +	Ma	Location *		
Category	Suppleme	ental		GPS Latitude/Longitude		
Calegory				Start		End
Item	2017 Stor	m Damage		37.7133	88°	37.713492 °
пеш				-121.2800	18°	-121.278982 °
DWR ID	DWR_RD2075_01_f _ 2017_18					
Comment Code						

#### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:576

LM End

Site Designation:LMA-482

Repair Type: Erosion

Rating:Area of Concern

Field Date:8/10/2017

3.95

Notes: 10/23/17: There was no riprap in this area. Erosion sites have been repaired by LMA.

Ma

Location \*

LM Start 3.90 Rating \*\* A/W Issue No. 18 (cont)

Issue Type +



Photo 3 of 4: LEVAL\_SP\_2018\_576\_4238.jpg



# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

LM Start	3.90	Rating **	A/W	Issue No.		18 (cont)
LM End	3.95	Issue Type +	Ma	Location *		
Category	Supplemental			GPS La	tituc	de/Longitude
Calegory				Start		End
Item	2017 Storm Damage		37.71338	38 °	37.713492°	
пеш				-121.2800°	18°	-121.278982 °
DWR ID	DWR_RD2075_01_f _ 2017_18					
	Comment Code					

#### Inspector Comment

Levee Evaluation Comments

Description: Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:576

Site Designation:LMA-482

Repair Type: Erosion

Rating:Area of Concern

Field Date:8/10/2017

Notes: 10/23/17: There was no riprap in this area. Erosion sites have

been repaired by LMA.



10/23/17: There was no riprap in this area (contrary to previous comment). Erosion sites have been repaired by LMA.

LM Start	4.00	Rating **	A/W	Issue No.		19
LM End	4.04	Issue Type +	Ma	Location *		
Category	Suppleme	ental		GPS La	itud	le/Longitude
Calegory				Location *  GPS La  Start  37.7140		End
Item	2017 Stor	m Damage		37.71404	8 °	37.714630°
пеш				-121.27836	3°	-121.278263 °
DWR ID	DWR_RD2	075_01_f _ 201	7_19			

#### Comment Code

#### Inspector Comment

Levee Evaluation Comments

Description: Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:577

Site Designation:LMA-483

Repair Type: Erosion

Rating:Area of Concern

Field Date:8/10/2017

Notes:

\* Locatio

#### Photo 1 of 3: LEVAL SP 2018 577 4471.jpg



LS: Land Side	N/A: Not Applicable	A: A
WS: Water Side		1 : M
00 0		

Acceptable Inimally Acceptable

N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain Issue Type

Ma: Maintenance Deficiancy Ob: Design & System Obsolescence En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

LM Start	4.00 Rating ** A/W			Issue No. 19 (		19 (cont)
LM End	4.04	Issue Type +	Ma	Location *		
Category Supplemental				GPS Latitude/Longitude		
				Start		End
Item	2017 Stor	m Damage		37.7140	48 °	37.714630 °
пеш	em				63 °	-121.278263 °
DWR ID DWR_RD2075_01_f _ 2017_19						
Comment Code						

#### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:577 Site Designation:LMA-483 Repair Type: Erosion Rating:Area of Concern Field Date:8/10/2017

Notes:

LM Start	4.00	Rating **	A/W	Issue No.	19 (cont)
LM End	4.04	Issue Type +	Ma	Location *	



Photo 3 of 3: LEVAL\_SP\_2018\_577\_4475.jpg



# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

LM Start	5.24	Issue No.		21			
LM End	5.29 Issue Type + Ma			Location *			
Category	Supplemental				GPS Latitude/Longitude		
Calegory			Start		End		
ltom	2017 Stor	m Damage		37.72846	° 08	37.727799°	
ltem				-121.27467	'1 °	-121.274252 °	
DWR ID DWR_RD2075_01_f _ 2017_21							
Comment Code							

#### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:578

Site Designation:LMA-484

Repair Type: Erosion

Rating:Area of Concern

Field Date:8/10/2017

Notes: Paved road on levee.

LM Start	5.24	Rating **	A/W	Issue No.	21 (cont)
LM End	5.29	Issue Type +	Ma	Location *	



Photo 2 of 3: LEVAL\_SP\_2018\_578\_4252.jpg



# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

LM Start	<b>5.24</b> Rating ** A/W			Issue No.		21 (cont)	
LM End	5.29	Issue Type +	Ma	Location *			
Category Supplemental				GPS Latitude/Longitude			
				Start		End	
Item	2017 Stor	m Damage		37.7284	60°	37.727799°	
пеш	item				71 °	-121.274252 °	
DWR ID DWR_RD2075_01_f _ 2017_21							
Comment Code							

#### Inspector Comment

Levee Evaluation Comments

Description: Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:578

Site Designation:LMA-484

Repair Type: Erosion

Rating: Area of Concern

Field Date:8/10/2017 Notes: Paved road on levee.

Rating \*\* A/W Issue No. LM Start 5.26 23 Issue Type + Location \* LM End Supplemental GPS Latitude/Longitude Category End Start

DWR\_RD2075\_01\_f \_ 2017\_23

2017 Storm Damage

#### Comment Code

37.728216°

-121.274434 °

#### Inspector Comment

Levee Evaluation Comments

Description:

Item

Site ID No:79

Site Designation:LMA-33

Repair Type: Erosion

Rating:Area of Concern

Field Date: 6/8/2017

Notes: no damage present



#### Photo 1 of 3: LEVAL\_SP\_2018\_79\_1331.jpg



Location	
LS : Land Side WS : Water Side	N/A: Not Applicable
WS · Water Side	

CR : Crown

Rating : Acceptable Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated

C: Corrected A/W : Acceptable but Monitor & Maintain Issue Type

Ma: Maintenance Deficiancy Ob: Design & System Obsolescence En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# **Reclamation District No. 2075 McMullin**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

LM Start	5.26	Rating **	A/W	Issue No.		23 (cont)	
LM End		Issue Type +	Ма	Location *			
Category	Suppleme	ental		GPS La	atituc	de/Longitude	
Calegory				Start		End	
Item	2017 Stor	m Damage		37.7282	16°		0
item				-121.2744	34 °		0
DWR ID DWR_RD2075_01_f _ 2017_23							
Comment Code							
Inspector Comment							
Levee Evaluation Comments							
Description:							
Site ID No:79							
Site Designation:LMA-33							
Repair Type: Erosion							

Ма

Location \*

Rating:Area of Concern
Field Date:6/8/2017
Notes: no damage present

LM Start 5.26 Rating \*\* A/W Issue No.

Issue Type +

LM End



23 (cont)



* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS: Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

LM Start	5.28	Rating **	A/W	Issue No.		1	
LM End	5.29	Issue Type + Ma		Location *		WS	
Supplemental Supplemental				GPS Latitude/Longitude			
Calegory	Category			Start		End	
Itom	ltem DWR Erosion Survey			37.7279	33 °	37.727933 °	
пеш				-121.2744	91 °	-121.274491 °	
DWR ID	RD2075U0	1RM64.34					

#### Inspector Comment

Comment Code

09/13/2017: No significant change observed.

07/12/2016: No significant change observed.

08/28/2015: No significant change observed. Loose material is visible at the upper levee slope. The loose soil may have been caused by runoff.

08/18/2014: No significant change observed.

09/10/2013: No significant change observed.

09/13/2012: No significant change observed.

08/18/2011: No significant change observed. Some new material added to the water side levee slope, but the added material is loose and seems not helping the levee protection.

10/05/2010: No significant change observed. Levee slope has minimal vegetation and lacks rip rap protection. Sandy material found on the lower and middle slope is an undesirable material to have on a levee. 08/05/2010: Recommended for annual assessment and monitoring during flood events, per CLRO.

08/20/2009: No major change since last visit; site is located in an oxbow; slope surface consists of very sandy material; there is a tree on site leaning and with exposed tree roots; site is recommended as a local maintenance issue, per CLRO CES Evaluation 2008 Report; Eddy Cordoza from the district is aware of the site and is looking for recommendation; site is previously rated "U".

08/17/2007: Site is close to an irrigation pump inlet. [2017 Site ID:RD2075U01RM64.34]

LM Start	5.28	Rating **	A/W	Issue No.	1 (cont)
LM End	5.29	Issue Type +	Ma	Location *	WS

#### Photo 1 of 3: SP\_2018\_RD2075\_315\_1\_20180503\_00001.jpg



Upstream view of the erosion site.

#### Photo 2 of 3: SP\_2018\_RD2075\_315\_1\_20180503\_00002.jpg



Close view of the site.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

LM Start	5.28	Rating **	A/W	Issue No.		1 (cont)	
LM End	5.29	Issue Type +	Ма	Location *		WS	
Category				GPS Latitude/Longitude			
Calegory	Calegory			Start		End	
Item	DWR Ero	sion Survey		37.72793	33°	37.727933 °	
пеш			-121.27449	)1 °	-121.274491 °		
DWR ID	RD2075U0	1RM64.34					

#### Inspector Comment

Comment Code

09/13/2017: No significant change observed.

07/12/2016: No significant change observed.

08/28/2015: No significant change observed. Loose material is visible at the upper levee slope. The loose soil may have been caused by runoff.

08/18/2014: No significant change observed.

09/10/2013: No significant change observed.

09/13/2012: No significant change observed.

08/18/2011: No significant change observed. Some new material added to the water side levee slope, but the added material is loose and seems not helping the levee protection.

10/05/2010: No significant change observed. Levee slope has minimal vegetation and lacks rip rap protection. Sandy material found on the lower and middle slope is an undesirable material to have on a levee. 08/05/2010: Recommended for annual assessment and monitoring during flood events, per CLRO.

08/20/2009: No major change since last visit; site is located in an oxbow; slope surface consists of very sandy material; there is a tree on site leaning and with exposed tree roots; site is recommended as a local maintenance issue, per CLRO CES Evaluation 2008 Report; Eddy Cordoza from the district is aware of the site and is looking for recommendation; site is previously rated "U".

08/17/2007: Site is close to an irrigation pump inlet. [2017 Site ID:RD2075U01RM64.34]

#### Photo 3 of 3: SP\_2018\_RD2075\_315\_1\_20180503\_00003.jpg



Looking upstream at the site.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

LM Start	5.56	Rating **	М	Issue No.	35		
LM End	5.56	Issue Type +	Ma	Location *			
Category			GPS Latitude/Longitude				
Calegory			Start		End		
Itom	DWR UCI	P LMA Respo	onsibility	37.72487	77 °	37.724877°	
item	Item				25 °	-121.271025 °	
DWR ID							
Comment Code							

#### Inspector Comment

FS\_ID:50191 DS\_ID:24740 EP\_NO: 3492

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 06/21/2016 Rock revetment placed along WS slope beneath and around pipe; this corrected the levee erosion but still unclear whether the cause of the erosion was addressed. I found no evidence of siphon breaker leakage cited previously. Eddy Cardoza of RD2075 mentioned he saw no leak in and around pipe when the levee slope was repaired. Crossing was been downgraded from Urgent to Non-Urgent. (K. Fazel - UCIP)11/13/2013 Huge erosion on waterside levee slope due to siphon breaker leakage. It is not 16-inch but 12-inch steel pipe. Pump not mounted on pile structure but mounted on concrete sump. Siphon breaker not in concrete riser but on steel pipe. Pipe is not 8 ft. below the crown but 4 ft below the crown. Looks original pipe was replaced with new crossing. Needs more information from LMA or DWR Inspector. (P. Amatya - DWR) FIELD\_STRUCT\_DESC: 12-inch asphalt coated steel drainage discharge pipe through the levee, 4 feet below the crown. Concrete cutoff wall. Pump mounted on a concrete sump in a drainage ditch approximately 200 feet off the landside (LS) toe. Siphon breaker on the apex of the pipe through the waterside (WS) slope. (Plans to replace the discharge pipe across the levee authorized under Permit No. 3492, 1960 - Reclamation District No. 2075, care of Eldred E. Brown, Secretary. Plans to replace a 10-horsepower pump and a 10-inch pipe with a larger 15-horsepower pump and a 14-inch steel discharge pipe authorized under Permit No. 3492-A, 1969 - Reclamation District No. 2075, care of Eldred E. Brown, Secretary). [Additional Reference(s): DWR Levee Log, 2005, 16-inch pipe referenced. USACE San Joaquin O&M Manual 3, December 1968, (HLM 5.52), 16-inch pipe referenced]. FS Date: 6/21/2016



WS view: siphon breaker on steel pipe on levee slope. Huge soil erosion due to siphon breaker leakage.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

LM Start	5.56	Rating **	М	Issue No.		35 (cont)
LM End	5.56	Issue Type +	Ma	Location *		
Category Supplemental			GPS Latitude/Longitude			
			Start		End	
Item	DWR UC	IP LMA Respo	onsibility	37.724877°		37.724877 °
пеш			-121.27102	25 °	-121.271025 °	
DWR ID						
Comment Code						

## Inspector Comment

FS\_ID:50191 DS\_ID:24740 EP\_NO: 3492

Repair Type: Non-Urgent Crossing Status: Found

FS Date: 6/21/2016

UCIP Comments: 06/21/2016 Rock revetment placed along WS slope beneath and around pipe; this corrected the levee erosion but still unclear whether the cause of the erosion was addressed. I found no evidence of siphon breaker leakage cited previously. Eddy Cardoza of RD2075 mentioned he saw no leak in and around pipe when the levee slope was repaired. Crossing was been downgraded from Urgent to Non-Urgent. (K. Fazel - UCIP)11/13/2013 Huge erosion on waterside levee slope due to siphon breaker leakage. It is not 16-inch but 12-inch steel pipe. Pump not mounted on pile structure but mounted on concrete sump. Siphon breaker not in concrete riser but on steel pipe. Pipe is not 8 ft. below the crown but 4 ft below the crown. Looks original pipe was replaced with new crossing. Needs more information from LMA or DWR Inspector. (P. Amatya - DWR) FIELD\_STRUCT\_DESC: 12-inch asphalt coated steel drainage discharge pipe through the levee, 4 feet below the crown. Concrete cutoff wall. Pump mounted on a concrete sump in a drainage ditch approximately 200 feet off the landside (LS) toe. Siphon breaker on the apex of the pipe through the waterside (WS) slope. (Plans to replace the discharge pipe across the levee authorized under Permit No. 3492, 1960 - Reclamation District No. 2075, care of Eldred E. Brown, Secretary. Plans to replace a 10-horsepower pump and a 10-inch pipe with a larger 15-horsepower pump and a 14-inch steel discharge pipe authorized under Permit No. 3492-A, 1969 - Reclamation District No. 2075, care of Eldred E. Brown, Secretary). [Additional Reference(s): DWR Levee Log, 2005, 16-inch pipe referenced. USACE San Joaquin O&M Manual 3, December 1968, (HLM 5.52), 16-inch pipe referenced].



LS view: pipe, pump and concrete sump in the drain ditch.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

LM Start	5.56	Rating **	М	Issue No.		35 (cont)	
LM End	5.56	Issue Type +	Ma	Location *			
Supplemental				GPS Latitude/Longitude			
Category				Start		End	
Item	DWR UC	IP LMA Respo	onsibility	37.7248	77°	37.724877 °	
пеш				-121.2710	25 °	-121.271025 °	
DWR ID							
Comment Code							

#### Inspector Comment

FS\_ID:50191 DS\_ID:24740 EP\_NO: 3492

FS Date: 6/21/2016

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 06/21/2016 Rock revetment placed along WS slope beneath and around pipe; this corrected the levee erosion but still unclear whether the cause of the erosion was addressed. I found no evidence of siphon breaker leakage cited previously. Eddy Cardoza of RD2075 mentioned he saw no leak in and around pipe when the levee slope was repaired. Crossing was been downgraded from Urgent to Non-Urgent. (K. Fazel - UCIP)11/13/2013 Huge erosion on waterside levee slope due to siphon breaker leakage. It is not 16-inch but 12-inch steel pipe. Pump not mounted on pile structure but mounted on concrete sump. Siphon breaker not in concrete riser but on steel pipe. Pipe is not 8 ft. below the crown but 4 ft below the crown. Looks original pipe was replaced with new crossing. Needs more information from LMA or DWR Inspector. (P. Amatya - DWR) FIELD\_STRUCT\_DESC: 12-inch asphalt coated steel drainage discharge pipe through the levee, 4 feet below the crown. Concrete cutoff wall. Pump mounted on a concrete sump in a drainage ditch approximately 200 feet off the landside (LS) toe. Siphon breaker on the apex of the pipe through the waterside (WS) slope. (Plans to replace the discharge pipe across the levee authorized under Permit No. 3492, 1960 - Reclamation District No. 2075, care of Eldred E. Brown, Secretary. Plans to replace a 10-horsepower pump and a 10-inch pipe with a larger 15-horsepower pump and a 14-inch steel discharge pipe authorized under Permit No. 3492-A, 1969 - Reclamation District No. 2075, care of Eldred E. Brown, Secretary). [Additional Reference(s): DWR Levee Log, 2005, 16-inch pipe referenced. USACE San Joaquin O&M Manual 3, December 1968, (HLM 5.52), 16-inch pipe referenced].



LS view: closer view of pipe, pump and concrete sump in the drain ditch.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

LM Start	5.57	Rating **	U	Issue No.		22		
LM End	5.57	Issue Type +	Ма	Location *	LS			
Category Earthen Levee				GPS Latitude/Longitude				
Calegory	y			Start		End		
Item	Trim / Thin Trees			37.7247	95°	37.724795°		
пеш				-121.2709	35 °	-121.270935 °		
DWR ID	DWR ID DWR_RD2075_01_s _ 2018_22							
Comment Code								
T1 : Trim trees to at least five feet above ground level.								
	-							

Inspector Comment



Looking downstream at untrimmed tree on landward toe. (Spring 2018)

LM Start	5.87	Rating **	A/W	Issue No.		28
LM End	6.33	Issue Type +	Ma	Location *		
Category	Supplemental				titud	e/Longitude
Calegory						End
Item	2017 Storm Damage			37.7217	10°	37.720960 °
пеш				-121.2674	90 °	-121.259830 °
DWR ID	DWR_RD2075_01_f _ 2017_28					

### Comment Code

#### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:579

Site Designation:LMA-485

Repair Type: Erosion Rating: Area of Concern

Field Date:8/10/2017

Notes: Berm present on LS. LMA 486 is combined with this site.



WS: Water Side CR: Crown

Rating A : Acceptable U : Unacceptable

: Minimally Acceptable

N: Not Inspected/Rated C: Corrected A/W : Acceptable but Monitor & Maintain Issue Type

Ma: Maintenance Deficiancy Ob: Design & System Obsolescence En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# **Reclamation District No. 2075 McMullin**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

LM Start	<b>5.87</b> Rating ** A/W		Issue No.		28 (cont)		
LM End	6.33	Issue Type +	Ma	Location *			
Category Supplemental			GPS La	atitud	le/Longitude		
				Start		End	
Item	2017 Storm Damage			37.7217	10°	37.720960°	
item				-121.2674	90°	-121.259830 °	
DWR ID DWR_RD2075_01_f _ 2017_28						·	
	Comment Code						

#### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:579

Site Designation:LMA-485

Repair Type: Erosion

Rating:Area of Concern

Field Date:8/10/2017

Notes: Berm present on LS. LMA 486 is combined with this site.

LM Start	5.87	Rating **	A/W	Issue No.	28 (cont)
LM End	6.33	Issue Type +	Ma	Location *	



Photo 3 of 3: LEVAL\_SP\_2018\_579\_4275.jpg



# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

LM Start	<b>6.20</b> Rating ** A/W		Issue No.		27	
LM End	6.33	Issue Type +	Ma	Location *		
Category			GPS Latitude/Longitude			
Calegory	Calegory			Start		End
Item	2017 Stor	m Damage		37.72208	37°	37.720952 °
пеш	item			-121.26186	3°	-121.259950 °
DWR ID	DWR_RD2075_01_f _ 2017_27					
Comment Code						

#### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:580

Site Designation:LMA-486

Repair Type: Erosion

Rating:Area of Concern

Field Date:8/10/2017

Notes: Yhis site is combined with LMA 485.

No Photos

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy

Ob : Design & System Obsolescence

En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

LM Start	6.84	Rating ** M		Issue No.		36
LM End	6.84	Issue Type +	Ma	Location *		
Supplemental GPS Latitu			Supplemental			le/Longitude
Category				Start		End
Item	DWR UCIP LMA Responsibility			37.71416	62°	37.714162 °
пеш				-121.25922	27°	-121.259227 °
DWR ID						

# Comment Code

#### Inspector Comment

FS\_ID:50213 DS\_ID:24742 EP\_NO: 4051

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 06/21/2016: Erosion repaired with rock revetment and crown regraded. Pipe is crushed and deformed on LS. PVC pipe has been removed. Crossing has been downgraded from Urgent to Non-Urgent.11/13/2013:- exposed deformed pipe on landside slope. Soil erosion also occured around the deformed pipe. Walkway at pump on LS toe in poor structural condition.- a temporary 12-inch PVC pipe also found on both sides of the levee.

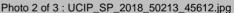
FIELD\_STRUCT\_DESC: 12-inch steel drainage discharge pipe through the levee, 5.5 feet below the crown. Corrugated metal cutoff wall. Pump mounted over a concrete sump at the landside (LS) toe. Siphon breaker in a corrugated metal pipe (CMP) riser on the waterside (WS) shoulder. Ditch across the WS berm. 12-inch polyvinyl chloride (PVC) pipe through the levee, 1 foot below the crown, installed for emergency use during the 1986 floods, not found in 2016. (Plans for installation of a 10-inch drainage discharge pipe for a drainage pump over the levee authorized under Permit No. 4051, 1962 - Reclamation District No. 2075). [Additional Reference(s): DWR Levee Log, 2005, 10-inch pipe referenced. USACE San Joaquin O&M Manual 3, December 1968, (HLM 6.79), 10-inch pipe referenced].

FS Date: 6/21/2016

LM Start	6.84	Rating **	М	Issue No.	36 (cont)
I M End	6.84	Issue Type +	Ma	Location *	

# Photo 1 of 3: UCIP\_SP\_2018\_50213\_45613.jpg

WS view: CMP riser (bottom) on levee shoulder. Steel pipe (top) and temporary pvc pipe on levee slope.





WS view: siphon breaker in CMP riser on levee shoulder.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	05/24/2018 05/24/2018	Richard Willoughby

LM Start	6.84	Rating **	М	Issue No.	36 (cont)		
LM End	6.84	Issue Type +	Ма	Location *			
Category		GPS Latitude/Longitude					
Calegory				Start		End	
DWR UCIP LMA Responsibility		37.71410	62°	37.714162°			
пеш				-121.259227 °		-121.259227 °	
DWR ID							
Comment Code							

#### Inspector Comment

FS\_ID:50213 DS ID:24742 EP\_NO: 4051

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 06/21/2016: Erosion repaired with rock revetment and crown regraded. Pipe is crushed and deformed on LS. PVC pipe has been removed. Crossing has been downgraded from Urgent to Non-Urgent.11/13/2013:- exposed deformed pipe on landside slope. Soil erosion also occured around the deformed pipe. Walkway at pump on LS toe in poor structural condition.- a temporary 12-inch PVC pipe also found on both sides of the levee.

FIELD\_STRUCT\_DESC: 12-inch steel drainage discharge pipe through the levee, 5.5 feet below the crown. Corrugated metal cutoff wall. Pump mounted over a concrete sump at the landside (LS) toe. Siphon breaker in a corrugated metal pipe (CMP) riser on the waterside (WS) shoulder. Ditch across the WS berm. 12-inch polyvinyl chloride (PVC) pipe through the levee, 1 foot below the crown, installed for emergency use during the 1986 floods, not found in 2016. (Plans for installation of a 10inch drainage discharge pipe for a drainage pump over the levee authorized under Permit No. 4051, 1962 - Reclamation District No. 2075). [Additional Reference(s): DWR Levee Log, 2005, 10-inch pipe referenced. USACE San Joaquin O&M Manual 3, December 1968, (HLM 6.79), 10-inch pipe referenced].

FS Date: 6/21/2016

# Photo 3 of 3: UCIP\_SP\_2018\_50213\_45614.jpg



LS view: deformed pipe and soil erosion around it (marked bottom). Pipe and pump on pile structure in drain ditch.